

# MONTHLY NOTICES

OF THE

ROYAL ASTRONOMICAL SOCIETY.

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APRIL 14, 1893.

No. 6

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Captain W. DE W. ABNEY, C.B., R.E., D.C.L., F.R.S., President,  
in the Chair.

Ludwig Becker, Ph.D., Professor of Astronomy and Director  
of the Observatory in the University of Glasgow;

Bernard Edward Cammell, Folly Court, Wokingham, Berks;

Raymond Hill Godfrey, F.R.G.S., 79 Cornhill, E.C., and  
Firview, Claygate, near Esher, Surrey;

Samuel Marcus Russell, Professor of Mathematics and  
Astronomy, Imperial College, Pekin, China,

were balloted for and duly elected Fellows of the Society.

The following candidates were proposed for election as Fellows  
of the Society, the names of the proposers, from personal know-  
ledge, being appended:—

Hedley Robert Beasley, Head Master of the Milldown School,  
Blandford, Dorset (proposed by Thomas Perkins);

Edwin Bailey Elliott, M.A., F.R.S., Waynflete Professor of  
Pure Mathematics in the University of Oxford (proposed  
by E. J. Stone);

Walter Frederick Gale, M.R.S. of New South Wales, The  
Observatory, Paddington, New South Wales, Australia  
(proposed by H. C. Russell);

Arthur E. Kennelly, Edison's Laboratory, Orange, New  
Jersey, U.S.A. (proposed by D. J. Kennelly);

Arthur A. Rambaut, D.Sc., Royal Astronomer of Ireland,  
The Observatory, Dunsink, co. Dublin (proposed by Sir  
R. S. Ball);

Frederick Lumb Wanklyn, Grand Trunk Railway Company,  
Montreal, Canada (proposed by D. J. Kennelly).

F F

Eighty-two presents were announced as having been received since the last meeting, including, amongst others :—

Agnes Giberne, Sun, Moon, and Stars (new edition), presented by the author ; Lick Observatory publications, No. 3 ; G. Leveau, *Théorie du mouvement de Vesta*, presented by the author ; J. M. Schaeberle, Terrestrial atmospheric absorption of photographic rays of light, presented by the Observatory ; Original negatives of *Jupiter*, and photographs from drawings of *Mars*, presented by the Lick Observatory.

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*Reproduction of Photographs.*

Arrangements have been made with Messrs. Eyre & Spottiswoode by which Fellows, and the public at large, will be able to obtain reproductions of photographs in the possession of the Society by purchase. Messrs. Eyre & Spottiswoode will copy such photographs, in every case providing one copy for the Society free of cost, and will sell copies to the Fellows or those who apply for them, at a fair price. It is to be understood that this firm has not been granted any exclusive right over the reproduction of photographs, and that the present arrangements are terminable at the pleasure of the Council.

The Council resolved, on 1893 April 14, that notice should be given to the Fellows of these arrangements by a paragraph in the *Monthly Notices*.

E. W. MAUNDER,  
H. H. TURNER,  
*Secretaries.*

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*On the Parallactic Inequality in the Earth's Motion around the Sun.* By E. J. Stone, M.A., F.R.S., Radcliffe Observer.

I take for the variations of the geocentric coordinates of the Sun due to a shift of origin from the common centre of gravity of the Earth and Moon to the centre of gravity of the Earth the expressions given by Le Verrier, *Solar Tables*, p. 47 :

$$\begin{aligned} dr &= -\frac{m'}{m+m'} \cdot r' \cos s' \cdot \cos (\nu' - \nu). \\ \delta s &= -\frac{m'}{m+m'} \frac{r'}{r} \cdot \sin s'. \\ dr &= -\frac{m'}{m+m'} \frac{r'}{r} \cdot \cos s' \cdot \sin (\nu' - \nu). \end{aligned}$$

where  $r' \nu' s'$  are the geocentric coordinates of the Moon ;  $r \nu$  the heliocentric coordinates of the Earth ;  $m' m$  the masses of the Moon and Sun. Putting  $\nu = \odot + 180$ , the expressions for  $\odot$  and  $r$  are taken from Le Verrier's *Solar Tables*, pp. 52, 53, 54.